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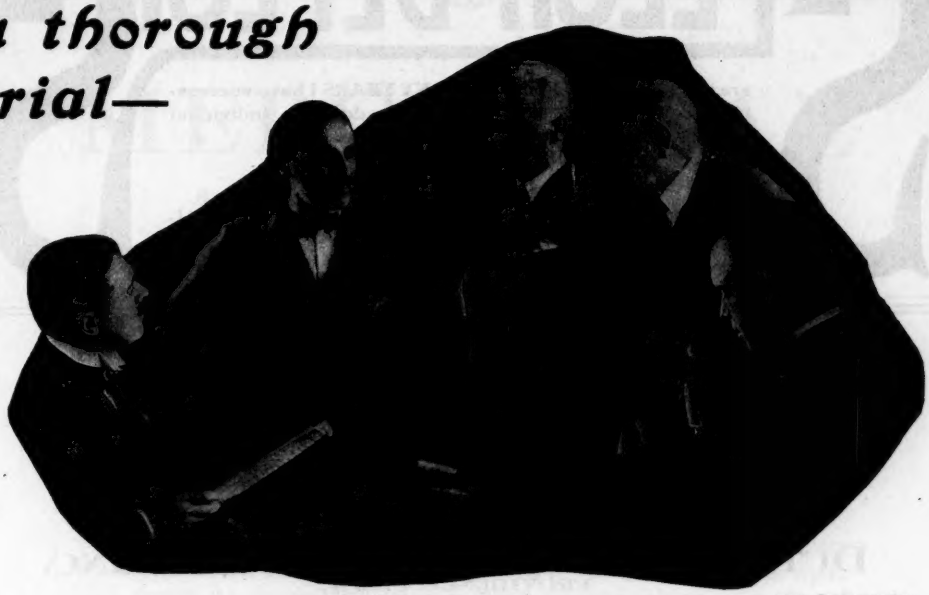

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ORIGINAL ARTICLES

THE X-RAY TREATMENT OF SUPERFICIAL PYOGENIC INFECTIONS.*

By

Isaac Gerber, M. D.

Providence, R. I.

I am limiting this paper to a consideration of the field of application of the X-rays in the treatment of such acute pyogenic infections as have hitherto been considered to be of chiefly surgical importance. This group includes carbuncles, furuncles, paronychias, phlegmon, cellulitis, and erysipelas.

During the past two or three years there seems to have been a renewal of radiological interest in this subject, after a rather long period of quiescence. The earliest record of the use of X-rays in these infections is the report of Pfahler in 1905 on the cure of a case of paronychia of many years' standing. In the twenty years that have passed, a number of papers have appeared on various aspects of this treatment and scattered roentgenologists in various parts of the world have been using the method. In this country, interest in the method has been revived particularly by the recent publications of Hodges. In Germany, within the past year, the surgeons have become especially interested in this treatment, and in many large clinics it has been thoroughly established as a most valuable adjunct to the other methods of therapy.

In spite of the fact that the radiologists of the world have been familiar with this method of treatment for many years, it does not seem to have penetrated very far into the armamentarium of the general medical public. I have not been able to find a single text-book of surgery in either English, French, or German, which even mentions this method in its discussion of the acute superficial pyogenic diseases. Even dermatologists with some understanding of X-ray treatment do not seem to have grasped the full significance of the agent, judging from their literature.

Pordes, in a recent paper before the German roentgenologists, gives several reasons for the neglect of this method of treatment, even by radiologists. First of all, there was the old fear of dermatitis, the mis-named "X-ray burns." It was thought that if an inflammatory process were present the X-rays would only stimulate this process and make it worse. It was not considered logical to attempt to treat an inflammation by producing another worse type of inflammation. Now, however, we know that X-ray dermatitis is a condition that comes on as a late result of the exposure to large doses of the rays. The clinical effects of X-ray treatment of inflammatory disease are accomplished within two or three days, as a rule, and the entire disease is often cured before the time for the appearance of any skin reaction. Besides, modern technique uses only small amounts of the rays, with high filtration. A second reason for the neglect of this treatment has been the overemphasis placed on the X-ray treatment of malignancy. For a long time the medical literature has been filled with various methods of measurement, dosage, etc., as applied to the deep treatment of malignant disease. Much of the research work has been purely along the lines of cancer investigation. In consequence, the general medical profession has been so thoroughly impressed with the value of radiation in the treatment of malignancy that it has largely forgotten that there is a much wider and more satisfactory field of application in the treatment of benign diseases, particularly these pyogenic infections. In fact, this field affords opportunity for real cures, whereas with malignancy we know that the best that can be offered in most instances is arrest or palliation.

My own interest in this field was stirred by hearing the classical paper of Dunham in 1916 on the X-ray treatment of carbuncles. He reported the results of this treatment in 67 cases. His results and especially his observations with regard to the varying clinical effects of the rays in this dis-

*Read before the Providence Medical Association, November 2, 1925.

ease are essentially the same as those now reported by our most recent observers. For a number of years I saw only a few scattering cases of pyogenic infection which came for X-ray treatment. It was very difficult to overcome the surgical bias of many years' standing. The article written by Hodges early in 1924 restimulated my interest and enthusiasm, and I began to look for cases of this sort to treat. Through the help of Dr. P. F. Butler of the X-ray department in the Boston City Hospital, I was enabled to see and treat a large number and variety of these diseases with most gratifying results. During the past fourteen months I have treated over 40 cases of true carbuncle, of which about two-thirds were on the neck; about 30 cases of paronychia; numerous boils and furuncles; as well as scattering cases of superficial phlegmon of the hand, arm or leg, deep and superficial cervical abscesses, and axillary abscesses.

With *carbuncles,* the clinical response to radiation is usually most satisfactory. Within 12 to 24 hours the pain will be relieved or disappear, the fever diminish, and the local appearance change materially. Two general types of response are noted. If treated early enough, the infection may be aborted completely. The lesion just shrinks up and disappears. If the infection has progressed further, the radiation will produce a definite breaking-down process. The entire lesion may be transformed into one large abscess. This may be evacuated by either a very small incision or by puncture with a large needle. As soon as the pus, which is in a liquefied state, has been drained, the lesion heals with great rapidity. In other cases the indurated lesion may localize in several areas. By superficial sloughing of the skin several small sinuses will be produced, through which the liquid pus will gradually drain. Very often no surgery will be needed. As a rule, only a single treatment is required, particularly in early cases. In older cases, especially those which have had surgery first, several more treatments may be necessary.

In the neck cases particularly, some type of surgery is often needed as an adjunct. If the case has been old and neglected when first seen, it may be necessary after radiation to open the wound and spread the layers of fascia and muscle without performing any radical excision. Often this is all that is necessary to promote adequate drainage and prompt healing. In rare cases that have been seen late, the entire area treated may break down superficially and require removal of the sloughing mass in order to get rid of a possible source of septic absorption. Later, however, the rays will promote granulation, and the resulting convalescence and scar will be much better than without the rays.

In the cases of carbuncles about the face, the results have been especially good. For years these infections have been a bugbear to the surgeon. If operated upon, the mortality was high. Expectant treatment led to many cases of septicaemia because of the rich lymphatic supply around the face. In the fairly considerable number of these facial cases that I have treated, there have been only two deaths. Both of these patients were thoroughly septic when first seen, and one had erysipelas as a complication. In all the other cases, the lesions followed the usual course and were cured as outlined above. Most of these facial cases were healed with the X-rays alone, and no adjunct surgery. One spectacular example of this type was a woman of middle age who came into the hospital with an extensive carbuncle of the chin. The area of induration was about three inches in diameter, raised, bright-red, and tender. The lower and upper lips were slightly reddened and there was oedema of the face reaching almost to the level of the eyes. There was a temperature of 103 F. on entrance, and general signs of a moderately severe toxaemia. The patient was given an X-ray treatment very soon after admission. Within 24 hours the temperture was normal. The oedema of the face and lips had disappeared; the pain was gone. On the second day after the treatment the lesion was thoroughly localized to the chin, and there were several small openings through which a liquid pus was oozing. The lesion quickly receded, and by the sixth day the patient was ready for discharge. Under ordinary treatment this patient would have run a very grave risk of dying from septicaemia.

The duration of treatment of carbuncles generally is lessened by the X-rays to between one-third and one-half of the time required by the usual purely surgical measures. In the older cases, particularly on the back of the neck, where considerable surgery has been required, the time of

hospitalization may not be less, but the ultimate cosmetic result is much better, and the former mortality is largely eliminated. One patient demonstrated this difference in methods very strikingly. He was a man of fifty, a policeman, who had had a carbuncle on the back of his neck treated at the same hospital four years before. The usual radical operation had been performed. He was in the hospital twelve days, and required a number of weeks' attendance later as an out-patient. At the time I saw him he showed a very large, stiff, deforming scar. This spring he had another carbuncle on the opposite side of his neck. He came in at a rather early stage and was treated by us as an ambulant entirely. After one X-ray treatment the lesion broke down and discharged spontaneously through several openings. In less than a week it was entirely healed. There was a small amount of local induration which disappeared following another small treatment with X-rays. Now there is only a very tiny smooth scar to be seen. The patient suffered very little inconvenience, and did not have to remain away from his work for any real length of time.

The cosmetic result following radiation of carbuncles is much better than that with surgery alone. The traumatism which occurs in the radical surgical procedure is eliminated. This diminishes the amount of tissue destruction and results in a scar which is much smaller and softer. Often there is no scar visible at all. The danger of later keloid formation or malignant degeneration is thus greatly lessened.

Many of the carbuncles I treated were in patients with *diabetes*. Here, of course, surgical procedures require careful preliminary medical treatment, and even then are more or less hazardous. The X-ray treatment is especially advantageous in these cases, as it does not impose any extra risks, and very often suffices without any other therapeutic measures.

In the treatment of carbuncles generally I feel that the best method of procedure is to apply the X-rays first and then allow the future course to be governed by the character of the response to radiation. Many of the cases, particularly the facial ones, will require no surgery at all. The lesions on the back of the neck may need some type of surgery, usually of a minor character. The days of the old routine crucial incision, or extensive dissection, are, I believe, entirely over, except in rare instances, and these usually in old cases.

In *furuncles*, which are, of course, the same type of lesion only restrictly to a single hair-follicle, the same conditions exist. Some authors feel that the treatment is not indicated until the furuncle is ripe. Others believe that better results are obtained if radiation is applied early, while the lesion is still closed. Under these circumstances, the local immunizing mechanism, which will be described later, has a better chance to progress to completion. I have had cases of furunculosis in which I am satisfied that lesions in the early stages were completely aborted by the X-rays. The absence of traumatism is an important element in the radiation treatment of these localized lesions. The integrity of the pyogenic membrane is not damaged, as it is apt to be with even the most careful of operations. In this way the danger of sepsis is lessened. Those lesions which are well-developed when radiated usually break down into a single sac of liquid pus. When this is opened the liquid character of the spurting pus is always startling to the surgeon who sees it for the first time. There is no resemblance to the compact "core" which he usually expects when opening a boil. The character of the incision which is made at this stage will often determine the type of the resulting scar. The incision should be as small as possible. A small circular incision is as efficient as a straight one in dealing with this liquid pus, and will usually heal with much less scar. In the after-treatment it is not necessary or desirable to use flaxseed or other poultices. Ordinary dry dressings are sufficient.

Although not strictly a part of this paper, I might mention that *chronic furunculosis* offers a very fertile field for the use of X-rays. In fact, Schreus believes that this treatment is much more efficaceous than vaccines. With the latter repeated injections are necessary, and recurrences take place which become gradually lighter. With X-rays it is only necessary to treat each lesion once as a rule. In many cases, as a result of the general immunization, treatment of a single furuncle will cause the recession of others which were not in the field of exposure.

Paronychias and *felons* afford another very useful field of application for the rays. The cases

I have treated have ranged from very fresh infections to some of months' standing, and one of several years' duration. The old cases of paronychia are apt to be complicated with parasites of the ring-worm family, requiring other additional treatment. Some of my most satisfactory cases have been those where the lesion had been opened and perhaps the nail removed, yet there still remained a raised zone of tender, chronic inflammatory tissue. This zone had a tendency to remain as it was without change. A single small dose of X-rays was sufficient in some cases to start a process of resolution and gradual cure. Even in cases that have advanced to partial bone involvement, the necessity of amputation may be avoided by arresting the infection.

This type of treatment has been warmly welcomed by the surgical internes. Needle infections and infections from dirty dressings do not have the same terrors as before. I have been able to abort a number of these deep finger infections by a single treatment. On the other hand, small superficial follicles which look as if they ought to melt away under the rays will often go on to liquefaction and require a small incision. The healing, however, will be very rapid, and the surgeon will be able to scrub and operate again with a minimum loss of time.

In treating paronychias and deep finger infections the usual surgical methods must still be used when indicated. Collections of pus under the cuticle must be drained. At times the nail may have to be removed to promote drainage or healing. If bone necrosis is present, amputation may be necessary. Ordinary surgical judgment must still be exercised. Here as in other fields the X-ray treatment is not intended to be a substitute for surgical judgment. It is merely a very valuable aid to the other approved surgical methods.

Superficial and deep *phlegmon* and *cellulitis* constitute another group in which X-ray treatment is useful. The results are particularly striking in cases with extensive brawny induration where multiple incisions have been made, but without the discharge of pus. Under radiation these cases promptly localize in one or more centers, which can be opened or which may drain through the incisions already made. In palmar infections where tendon-sheath involvment is feared, the treatment will often succeed in maintaining usefulness in a hand whose function might otherwise be largely impaired. The lymphangitis which often accompanies these phlegmons, particularly of the hand, will disappear after radiation, often before the local lesion has been visibly affected. The secondary lymphnode enlargement that accompanies many of these infections will usually disappear together with the streaks of lymphangitis, merely from radiation of the primary infection. Rarely it may be necessary to treat the nodes themselves. These will either disappear or go through the same process of liquefaction as the primary area of infection.

I have had several cases of *deep cervical abscess* in which the rays have been used with considerable benefit. The prompt relief of the pain was the most significant feature of the treatment. In one case of true "Ludwig's angina" the drainage after operation was not very free, and there was considerable pain. A single radiation was sufficient to start free drainage and initiate the healing process. In *peri-tonsillar abscess* I have used the treatment twice with success. Here it is valuable particularly in the cases where there is no localization of pus, but merely a general bogginess and swelling, and an incision simply draws blood. The rays will promptly break down this inflammatory infiltrate, relieve the pain, promote drainage, and hasten the healing.

Axillary abscess offers another useful field. Here in particular the cases of recurring abscess formation following furunculosis have always been difficult problems for ordinary surgical handling. For these cases as a rule the only curative remedy left is an extensive resection of the gland-bearing region with an eventual plastic operation, resulting often in deformity and disability. Heidenhain has used the rays frequently in these extensive cases, and reports that very little radiation is necessary and recurrences are very rare.

Erysipelas is the last condition that I shall discuss tonight. A very large amount of radiologic literature has appeared regarding the treatment of this disease, and the results seem to be very striking when applied to suitable cases. The X-ray treatment is simpler, cleaner, faster, and less dangerous than other methods. In the great majority of the cases reported there was a definite fall of temperature by crisis after one or two treatments. This was coincident with an improvement in the

local and general conditions. My own experience with this disease has been rather limited. Several of my cases of facial carbuncle were accompanied by beginning erysipelas. This disappeared together with the deeper infection. The only full-blown cases that I have handled were very advanced ones in which it was difficult to judge whether the improvement was due to the radiation or whether the disease had already reached its turning point. The cases most suitable for treatment are the early ones where there has been very little extension from the primary focus. In this group the treatment would seem to be a very useful and simple one.

The explanation of the clinical phenomena which I have described offers a very interesting field for study. It is probable that the rays have a double effect, partly local and partly general. We know at present from a variety of scientific studies that the local effect of X-rays is exclusively a cell-depressing action. The rays produce either paralysis and limitation of function, or coagulation and destruction of the cells, depending upon the dose and upon the sensibility of the cells concerned. In the present instance, the most sensitive cells in the regions radiated are the leucocytes and in particular the lymphocytes. The destruction and dissolution of these elements take place within the first few hours after radiation, which is the time when the first relief of pain is manifest clinically. This is due probably to the relief of tension following the breaking down of the leucocytic infiltrate. Further tissue lysis is then limited by the fact that the phagocytes have been largely destroyed. A process of auto-immunization is set in action by the liberation of anti-bodies when the leucocytes are dissolved. This concept was brought out some time ago by Iselin in connection with the studies of immunizing processes existing in the radiation of tuberculous tissues. Heidenhain has also shown that many of the bacterial toxins are probably broken down as a result of altered physico-chemical states following the radiation.

This local immunizing mechanism helps in the production of the general lessening of toxaemia as manifested by the fall of temperature and improvement in the general condition. In cases which are radiated some time before the lesions are opened, there is ample opportunity given for the collection of these anti-bodies and the production of an immunity. This explains the better results with the radiation of closed lesions, which has been emphasized by so many of the observers.

In addition, there is undoubtedly a general immunizing mechanism set in action by the rays. Schrader noted with his erysipelas cases that in widespread infections radiation of one area would often result in the regression of an area that had not been in the field of treatment. Similar experiences were reported by Schreus in the treatment of furuncles. Heidenhain and Fried have made very careful serological studies in a large number of their cases. They found a very definite and constant increase in the bactericidal substances present in the blood after radiation, as compared with the condition before. In fifty-five of their cases pus from the lesions was found to be sterile after radiation, particularly when the pus developed after the rays had been applied. From their experiments they were convinced that the production of the bactericidal substances came largely from the exposure to the rays of a large cross-section of circulating blood. In addition, of course, some of these anti-bodies have their origin in the original locus of infection.

Without being concerned about the exact ultimate mechanism, there is no doubt that radiation initiates both local and general immunizing processes, which are of the most valuable help in hastening the clinical cure. In the future it will probably be shown that the immunizing mechanism after radiation is variable, depending upon the character of the infection as well as its location. We already know that in some instances the local mechanism is more important, while in others the general immunity reaction seems more active.

With regard to the technique of this treatment I shall not go into any details, as I am not addressing an audience of radiologists. It is sufficient to state that small doses of well-filtered rays are used. It is necessary to have apparatus of sufficient power to give an adequate dosage through 4mm. of aluminum for the smaller lesions and through 1-2mm. of copper for the more extensive and deeper seated processes.

Summary

The application of X-rays to superficial pyogenic infections has been known for many years, but the value of the method has not penetrated

the general medical public until recently. The neglect of the treatment has been due partly to the old fear of X-ray dermatitis and partly to the excessive emphasis of recent years on the X-ray therapy of malignancy.

The X-ray treatment is applicable to cases of carbuncle, furuncle, paronychia, phlegmon with or without lymphangitis, cellulitis, axilary abscess, erysipelas, etc.

Clinically the treatment is followed by very prompt lessening or disappearance of pain, diminution in the local oedema and swelling, and gradual subsidence of the infection. If treated early enough, complete abortion of the disease may be obtained. Infectious processes of longer standing may be converted into one enormous abscess cavity which may perforate spontaneously, or may require a slight incision or puncture. In other types of infection, with the disappearance of the surface oedema, one or more centers of localization will be produced, which also may perforate or may require surgical evacuation. The effects of treatment are always better when the abscess remains closed before radiation.

The best explanation of the effects of the rays is based upon the production of a local and general increase in immunity. The local effect is due largely to the action of the rays on the leucocytes, producing dissolution. The secondary production of anti-bodies locally and generally is also important.

ACUTE SINUSITIS.*

Dr. Francis B. Sargent.

Providence, R. I.

Acute accessory sinusitis occurs as a complication of some form of rhinitis or nasopharyngitis. In health, air enters the accessory sinuses with every nasal inspiration. Ordinarily they are kept free from bacteria by the action of the ciliated epithelium lining them, which sweeps all foreign particles through their ostia into the nose. Infection occurs when pathological conditions of the nasal and sinus mucous membrane overcome this protective mechanism. The sinuses become involved either by direct extension of the nasal infection or by having micro-organissms forced into the sinus by violent fits of coughing or sneezing.

Following acute epidemic respiratory infections such as influenza or grippe, we have epidemics of acute sinusitis of varying severity. The duration of the individual attack may be only a day or two or may extend over a period of weeks. The mucous membrane is greatly swollen in the acute process, a condition which may lead to chronic thickening of the sinus lining and predispose the patient to recurrences of sinusitis with every severe nasal infection.

Two general types of acute sinusitis are generally recognized; the non-suppurative, in which localized pain is the major symptom, and the suppurative, in which pain is accompanied by a profuse purulent discharge from the nostril on the affected side.

Diagnosis of the presence and location of sinus infection is made by the character and location of the pain, the presence of pus in the middle meatus of the nose, and by transillumination and X-ray.

The location of the pain in acute sinusitis varies considerably. Generally pain due to maxillary sinus disease may occur in the maxillary region, forehead and upper teeth. Frontal sinusitis is manifested by pain in the forehead, while ethmoiditis and sphenoiditis causes pain in the eyes, temporal region and occipital region. All manner of variation may occur.

In an acute purulent sinusitis, pus is present in the middle meatus of the side involved.

Transillumination is of great value in the diagnosis of acute antrum infection and of some value in frontal sinus infection. If further information is needed, X-ray of the sinuses will help.

Treatment of acute sinusitis is both local and general. In the office we usually shrink the middle turbinate region with a cocaine-adrenalin solution, freeing the natural opening as much as possible. In suppurative cases, we usually wash the nose out with an alkaline solution and apply suction to the affected side. The smallest amount of suction that will withdraw pus from the affected sinus into the nose is most efficacious and without risk. After the purulent contents of the sinus have been evacuated, it is possible to force antiseptic solutions such as silvol or one of the analine dyes into the sinuses. This procedure,

*Read before the Providence Medical Association, October 5, 1925.

however, may flood the middle ear through the Eustachian tube and even set up an titis media.

At home the patient can help his condition by using some astringent mixture in the nose to keep his ostia clear, and by douching the nose with a warm alkaline solution. However, he should never blow the nose hard after the use of nasal douche. General treatment consists of free catharsis, light diet and forcing of fluids. The salicylates seem most effective in relieving the pain.

Almost never is operation necessary or advisable in an acute attack.

The organisms most commonly found in infected sinuses differ in the reports of different observers. Most reports available deal with chronic rather than acute sinusitis.

The pneumococcus, influenza bacillus, staphylococcus aureus and albus, and the streptococcus are the most common organisms reported, but many others have been found either in pure or mixed culture.

Following is a report of a series of cases of acute purulent sinusitis occurring in Providence last winter, with their bacteriology. There appeared to be three so-called "flue" epidemics in the period from October to April, the first occurring in October, the second in January, and the third in March and April. Each of these left in its wake a certain number of sinus complications. During this period fifty-four cases of acute purulent sinusitis were encountered. As nearly as could be determined, the purulent process developed in the average about six days after the onset of the influenza attack and the average duration of the sinus infection was nine days. The severe pain in nearly every instance subsided a few days before the cessation of the nasal discharge. These cases could be classified clinically as follows: Antrum infections, 32; fronto-ethmoidal infections, 18; both types present, 6. In two cases both antra were infected at the same time.

Cultures were taken from the pus that was drawn from the infected sinuses into the middle meatus by suction and were incubated twenty-four hours on dextrose agar and blood serum. Streptococci were grown out on blood agar in a petri dish.

In a series of fifty-four cases pure cultures were obtained in forty-four and mixed cultures in ten cases.

As shown in the accompanying chart, the most common organism found in October was the type III. pneumococcus, in mid-winter the staphylococcus, and in March and April, the stereptococcus and staphylococcus. No case was included in the series which did not show abundant pus in the middle meatus following suction or in which symptoms had been present for more than two weeks.

	Pneumo.	*Strep.*	*Staph. Aureus.*	*Staph. Albus*	*Number Cases*
October	6	0	2	0	6
November	1	1	2	0	3
December	0	1	2	0	3
January	2	2	3	1	7
February	3	2	4	3	10
March	0	4	6	6	16
April	0	5	4	2	4

The type of organism present seemed to make no difference in prognosis, and none of these cases went on to chronic sinusitis. They were all treated by the usual astringents, suction, and the salicylates internally.

As stated above, these cases of acute sinusitis followed closely on the so-called grippe epidemics of October, January and March. Their bacteriological study was designed to throw some light on the etiology of these epidemics. With the likelihood of prompt secondary infection in an organ like the nose and accessory sinuses, it is very difficult to pin the etiology of an acute nasal infection on any given organism. Still it would seem that the epidemic in October might well have been due to the type III. pneumococcus.

INVERSION OF THE UTERUS*

Report of Case

I. H. Noyes, M.D., F.A.C.S.

Providence, R. I.

The infrequency of inversion of the uterus attaches to the condition sufficient interest to justify recording all cases observed. Some writers state that it occurs as often as once in 10,000 deliveries while others give it as not more than once in 400,000.

*Reported to the Providence Medical Association, November 2, 1925.

It would appear that an unusual degree of relaxation of the uterine walls is the most likely predisposing cause while the most frequent exciting cause has undoubtedly been improper conduct of the third stage of labor either by pressure on the fundus during a state of relaxation of the uterus, in such a manner as to cause its indentation, or by traction on the cord or a combination of both. An adherent placenta implanted near the fundus might easily be an additional predisposing factor. Records show, however, that several cases have occurred spontaneously following what appeared to have been a normal placental stage.

Report of Case

The patient was a para iii, 36 years old. There was no history of previous illness or operation except delivery of her first child by forceps four and one-half years ago. Her second child was delivered normally. The pregnancy and puerperium were normal in each instance. The third pregnancy was uneventful to term and labor began at 7 P. M., August 7, 1925. After three and one-half hours of normal labor a male child weighing 7 lbs. 14 oz., was delivered spontaneously. Gas was administered for partial analgesia during the latter part of the second stage. After birth of the child the placenta did not separate and several unsuccessful attempts to express it were made during the next hour. Meanwhile there was considerable bleeding which affected appreciably the rate and character of the pulse. A final attempt at expression from above combined with traction on the cord brought about a complete inversion of the uterus. The placenta, still firmly adherent, was peeled from the fundus and posterior wall and the inverted uterus pushed into the vagina. An attempt was then made to reduce the inversion without anesthesia. This caused severe pain and, as bleeding was profuse and the patient's condition extremely critical, further efforts at reduction were stopped and the vagina packed tightly with gauze. An intravenous infusion of 300 c. c. of salt solution was then given. By the time this was completed, blood was oozing through the vaginal pack and the slight improvement in the pulse noticed during the infusion, was of short duration. Immediate consultation was held and it was decided to administer an anesthetic and again attempt reduction. This was done at 1 A. M. and after some difficulty the inversion was reduced one hour and 20 minutes after it occurred. The lower uterine segment and vagina were packed with gauze. Another intravenous infusion of 700 c. c. of salt solution was then given and was followed by distinct improvement in the pulse for about two hours. The patient was kept in the Trendelenberg position and morphine administered, but her condition became progressively worse although there was no further bleeding from the vagina. Adrenalin, caffeine, camphor and digitan were resorted to without apparent effect. At 6 A. M., four hours after the last infusion, another 500 c. c. of saline was given by hypodermoclysis but had no visible effect. The systolic blood pressure at this time was 50 and the heart beats counted at the apex from 160 to 170 per minute. It seemed then as if recovery could hardly be hoped for. However a suitable donor was obtained and at 11 A. M. the patient was transfused with 500 c. c. of blood by the citrate method. Little change was apparent for a time, but after two hours there was noticeable improvement which continued during the afternoon and night. The following morning the pulse was 120 and of good character. The temperature was 102 degrees, but gradually returned to normal where it remained after the thirteenth day. The patient left the hospital on the twenty-second day after delivery and pelvic examination at that time was in every way normal. Another examination seven weeks after delivery showed the uterus to be perfectly involuted and in excellent position and the adnexa normal.

This case viewed in retrospect teaches some important truths. It impresses upon us anew in a most forceful manner the possibility of the occurrence of this unusual condition; it shows us its gravity and how tragic the consequences may be, due to hemorrhage and shock, as well as the almost miraculous effect at times of a blood transfusion; but more than anything else, it proves that the fundamental rules laid down for the conduct of the third stage of labor cannot safely be ignored, as was deliberately done in this case in the vain hope that the placenta might be obtained without resorting to manual removal.

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RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

HALSEY DEWOLF	*President*	Providence
H. G. PARTRIDGE	*1st Vice-President*	Providence
NORMAN M. MACLEOD	*2nd " "*	Newport
JAMES W. LEECH	*Secretary*	Providence
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Meets the second Thursday in January, April, July and October

M. H. SCANLON	*President*	Westerly
WM. A. HILLARD	*Secretary*	Westerly

WOONSOCKET

Meets the second Thursday in each month excepting July and August

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J. M. MCCARTHY	*Secretary*	Woonsocket

Section on Medicine—4th Tuesday in each month, Dr. Charles A. McDonald, Chairman; Dr. C. W. Skelton, Secretary and Treasurer.

R. I. Ophthalmological and Otological Society—2d Thursday—October, December, February, April and Annual at call of President Dr. Jeffrey J. Walsh, President; Dr. Francis P. Sargent Secretary-Treasurer.

The R. I. Medico-Legal Society—Last Thursday—January, April, June and October. Frederick Rueckert, Esq., President; Dr. Jacob S. Kelley, Secretary-Treasurer.

EDITORIALS

WHAT IS THE HEALTH OF A COMMUNITY WORTH?

If a thing is worth doing, it is worth doing well. This old adage was never more applicable than now. If a Commissioner is decided upon to guard the community's health, it must be borne in mind that any man big enough for the job—a trained sanitarian, enough of an engineer to understand sanitary construction and ventilation, of forceful administrative capacity and a recognized medical disciplinarian—will hardly be lured into the chair of Commissioner of Health by a salary that is not commensurate with the duties and responsibilities of the office.

To hold an adverse attitude and appoint a lesser man would be a betrayal of a State's trust. We are not seeking merely a change but a betterment.

PUBLIC HEALTH A POLITICAL FOOTBALL.

At the time of going to press, the act relating to a Commissioner of Health had not been passed. The good results which it was hoped would follow from the passage of this act will be wholly lost if the commissioner be not a scientifically trained man of the highest type. In the Society's draft of the act the salary was placed at seventy-five hundred dollars in order to attract such men.

When the committee deleted that provision they made it reasonably certain that no high-grade men would consider the position and political trading has been covertly prophesied.

Almost immediately one candidate started a vigorous campaign with the usual political appurtenances of newspaper publicity, endorsement by local organizations, and the circulation of form letters of endorsement to be signed and sent to the Speaker of the House.

It has been freely predicted at the State House that such a man has a good chance for the office, but not entirely because of any ability or especial fitness for this important work. There is a current conviction that this particular candidate has a near relative that is closely associated with a certain "power" at the State House, credited with having such a compelling prestige that a candidate bearing his "hall-mark" has more than a chance of winning. If such methods obtain it seems a bootless task to try to better the public health by legislation. We hope that by the time these words are in print our lawmakers will have refused to jeopardize the health of the state for the sake of paying the political debts of any party leader.

FUTURE ANESTHETISTS.

An illustrious visitor studied the anesthetic situation in this country and decided that "the nurses can give anesthetics just as well as the doctors." True, some of the nurses give anesthetics better than the doctors, and in an increasing number of hospitals nurses are employed for this work to the entire exclusion of medical graduates. But this practice does not solve the problem of satisfactory anesthesia for surgical work in the future. The foundation on which anesthesia by nurses rests is knowledge of anesthesia by the surgeon or some other member of the surgical team. Under the present routine, there is no opportunity for any member of the surgical team to acquire this knowledge. Medical schools give no instruction in anesthesia, yet retain a Class A. rating. Institutions which remain on the list of hospitals providing a satisfactory internship turn out graduates who have never administered a single anesthetic. With regard to general anesthesia, these graduates have neither knowledge, experience, nor interest, and they are the surgeons of the future.

When the aim of some of our great surgical associations shall have been accomplished and anesthesia has been entirely turned over to nurses, after the last graduate anesthetist has passed away, where may then be obtained the knowledge and skill in anesthesia which the public will demand when the true conditions become generally known? Perhaps from England or from Canada, where instruction and training in the administration of general anesthetics are still features of the education in medical schools and hospitals.

THE MEDICAL LIBRARY.

There is, perhaps, no field of scientific endeavor in which experience plays so large and so vital a part as in the realm of medicine. Education, preliminary and medical, and professional training of high calibre are essential, but experience remains the most important single factor in the proper development of the medical man. The experience of any one of us, however, must of necessity be very limited, as it must also be subject to grave error, since we are dealing not with carefully controlled laboratory experiments, but with experiments of nature, with many variable and even unknown factors. Fortunately, we are not dependent upon our own limited experience entirely, as we have available the collected experience of thousands of medical men through long periods of years in the form of medical literature.

This literature divides itself naturally into periodicals and books, and it is the function of a medical library to collect and care for this material so that it may be immediately available for use when it is needed. The existence of several good indices to periodical medical literature makes this form of recorded experience easily accessible, and

therefore of great value. The books in any library, however, are of very little value unless a carefully compiled card catalogue makes them equally accessible. The recently inaugurated move to bring about such a cataloguing of our own library is deserving of hearty support, and should be pushed promptly to completion, as it would transform our collection of books into a valuable working library.

CLINICAL CONFERENCES

Dr. Richardson spoke before the Rhode Island Medical Society at its December meeting: "In Regard to Clinical Conferences."

Up to the present time I think the Conferences have been more or a less a success, but attendance should be encouraged.

I am pleased to present what figures I have of attendance, etc., up to the present time.

The total number matriculating, 160; of these men, about 103 were hospital staff physicians; 57 were not.

About 87 elected one or more courses and sent in $10.00; 73 selected the single course.

Following is a list of the number of individuals electing, and the various courses:

	Number Electing
Course 1	104
Course 2	94
Course 3	55
Course 4	49
Course 5	39
Course 6	33

At the present time the Committee has received $1225, of which $199 has been spent. There will be further expenditures. Just how much, it is impossible to say. A bit of printing, of which I may have a copy today before the meeting is over, is yet to be paid. It is a booklet giving a chronological list of these clinics and where they are to be held. It will be very convenient for members to have for reference as to the dates, and places, etc. This will be some expense. Also, we are going to send out a postal card before the first of each week as a reminder of the coming clinics. Those matriculating consisted of the following physicians:

One hundred and fifteen from Providence; 9 from Pawtucket; 4 from Newport; 4 from Woonsocket; 3 from Westerly; 25 from other towns. Total, 160.

Figures on attendance:

Memorial Hospital.		
Nov. 2	25	Medical
Nov. 10	24	Surgical
Nov. 16	25	Medical
Nov. 18	12	Surgical
Nov. 24	9	Surgical
Nov. 30	9	Medical
Rhode Island.		
Nov. 6	40	Medical
Nov. 13	28	Medical
Nov. 20	26	Medical
Nov. 27	14	Medical
Dec. 2	10	Surgical
City Hospital.		
Nov. 10	18	Infectious
Nov. 17	9	Infectious
Nov. 24	15	Infectious
Dec. 2	12	Infectious
St. Joseph's.		
Nov. 4	18	Surgical
Nov. 11	19	Surgical
Nov. 18	10	Surgical
Nov. 25	8	Surgical
Westerly Hospital.		
Nov. 5	6	Medical
Nov. 19	7	Surgical
Newport.		

1 Clinic, no report at present time.

About money. We are going to have quite a lot of money left. I think you should know that whatever is left next spring will be at the disposal of this Society, as it has been deposited with the treasurer of the Rhode Island Medical Society. We ask for criticism and suggestions either now or at any later time, verbally or in writing, and undoubtedly next spring a circular will be sent out asking definitely your opinion of these clinics, and what suggestions you may have to offer. The men who will be called upon to give clinics next year will not, necessarily, be the same men as called upon this year. We want suggestions from all.

SOCIETIES

Rhode Island Medical Society.

House of Delegates, Jan. 12, 1926.

A special meeting of the House of Delegates was held this day at the Medical Library at 4.30 P. M., the President, Dr. De Wolf, presiding.

The resolution from the General Session of December introduced by Dr. J. W. Keefe relative to a cataloging of the library, which was referred to

the House of Delegates, was presented. Dr. Mowry moved that the subject be referred to the Committee on Library with the request that they consider the feasibility and cost of such cataloging and to report on same at the annual meeting. Duly seconded by Dr. Partridge and so voted.

A bill presented by the Committee on Legislation, Dr. Fulton chairman, relating to the practice of the Healing Art, was presented to the House and sections of the bill taken up seriatim and discussed. In brief, this act places the issuance of licenses to persons desiring to practice the Healing Art in the hands of the State Board of Education; the examination of all candidates in the basic subjects of anatomy, physiology, chemistry, physics, biology, bacteriology and the fundamental principles of pathology; upon the successful passing of the basic examination the candidates indicates to the Board of Education the particular school or sect under which he desires to practice and an examination in the principles of this particular school or sect is then given to the applicant by representatives of the particular school or sect under which he desires to practice. It was voted that the following suggestions for changes be made to the Committee on Legislation to be followed if they so deemed it wise:

First, under section 5, the word "only" be inserted after the words "healing art" so that the third sentence shall read: "Such license shall carry authority to the holder thereof to practice the healing art only as taught and practiced by such sect, cult or school"; and secondly, that the last sentence in section 6 reading, "All persons qualified to practice the healing art under provisions of this act shall enjoy equal rights and privileges thereunder," be omitted from the bill.

On motion of Dr. Burgess, seconded by Dr. Skelton, it was voted that the House of Delegates approve the bill. The motion was passed by 7 to 4 vote.

Adjourned.

J. W. LEECH, *Secretary*

House of Delegates, Jan. 13, 1926.

A special meeting of the House of Delegates was called this day at the Medical Library at 5 P. M., the Vice President, Dr. H. G. Partridge, in the chair.

This meeting was called for the purpose of considering the bill to be introduced to the State Legislature relating to the State Board of Health, creating a State Commissioner of Health, defining the powers and duties of the State Board and Commissioner, and relating to town health officers. Essentially this bill provides for a State Board of Health consisting of five persons, two of whom shall be physicians; the appointment of a Commissioner of Health to be ex-officio secretary of the Board and State Registrar; legislative and advisory powers to be vested in the State Board of Health and executive power in the Commissioner of Health; the appointment of deputies to administer the various bureaus of the State Board of Health; and the appointment of physicians to act as health officers in cities and towns. Various sections of the bill were considerd seriatim and questionable points were explained by Mr. Jacobson, the attorney for the Rhode Island Medical Society. On motion of the Secretary, seconded by Dr. Skelton, it was voted that the House of Delegates, representing the Rhode Island Medical Society, hereby approves and agrees to the above mentioned bill and urges its passage.

Adjourned.

J. W. LEECH, *Secretary*

WASHINGTON COUNTY MEDICAL SOCIETY.

The forty-second annual meeting of the Washington County Medical Society was held at the Elm Tree Inn, Westerly, Thursday morning, January 14, 1926.

Dr. J. Gordon Anderson was elected to membership, making the total membership 31.

The treasurer's report showed the Society to be in a healthy condition financially with yearly dues of five dollars.

Officers for the ensuing year were elected as follows:

President—M. H. Scanlon, M. D., Westerly.

First Vice President—John Champlin, Jr., M. D., Westerly.

Second Vice President—J. P. Jones, M.D., Wakefield.

Secretary and Treasurer—W. A. Hillard, M.D., Westerly.

Auditor—S. C. Webster, M.D., Westerly.

Censor for Three Years— C. G. Savage, M. D., Westerly

Delegate to Rhode Island Medical Society for two years—P. J. Manning, Wickford.

Councilor to Rhode Island Medical Society for two years—J. D. Barber, Westerly.

Alternate Councilor—M. H. Scanlon, Westerly.

Drs. John Champlin, C. G. Savage and Milton Duckworth were named as the Legislative Committee.

Dr. James F. Cooper, of New York, a representative of the American Birth Control League, Inc., addressed the meeting on "The Technique of Contraception."

Adjourned and dined.

W. A. Hillard, *Secretary*

Rhode Island Medico-Legal Society.

The regular quarterly meeting of the Society was held in the Medical Library, 106 Francis Street, Providence, on Thursday, January 28, 1926, at 5 P. M. Paper, "The Medical Man on the Witness Stand," by Alonzo R. Williams, Esq., of Providence, R. I. Following adjournment, a light supper was served.

Jacob S. Kelley, M.D., *Secretary*

Providence Medical Association

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. Roland Hammond, Monday evening, February 1, 1926, at 8.55 P. M.

The records of the last meeting were read and approved.

The Standing Committee having approved the application of Dr. Andrew W. Mahoney, the Secretary was instructed to cast one ballot for his election.

The first paper of the evening was by Frank G. Wren, A.M., Dean of the School of Liberal Arts, Tufts College, on "Pre-Medical Education."

After speaking of the development in the School of Arts of the courses it has at present, he spoke of the prolonged educational requirments of medical students and the difficulty of harmonizing their pre-medical courses with college curriculums. He then outlined the Tufts plan of courses in science, social science and languages, followed by medical training; all completed in seven years, and the first year of medicine counted in giving the A.B. degree at the end of four years.

"Undergraduate Medical Education" was discussed by Alexander S. Begg, M.D., Dean Boston University Medical School. He referred to the antiquity of medical instruction with its two methods of apprenticeship and schools, and then described the great change when in 1908 the activities of the Council on Medical Education of the A.M.A. and the Carnegie Foundation with the report of Abraham Flexuer led to a great reduction in the number of medical schools and an elevation of standards. He then spoke of some of the attempts to vary the present methods of teaching, especially to bring to the students in the first years an appreciation of the clinical application of their non-medical courses. In the future he thought that the internship might be made a part of the school courses. In conclusion, he spoke of the fine facilities that Providence had, the stage being set here for a medical school.

Then Samuel R. Meaker, Secretary Courses for Graduates, Harvard Medical School, spoke on "Post-Graduate Medical Education." Undergraduate courses are too full and some are squeezed to post-graduate schools. All courses for specialists should be post-graduate.

Post-graduate courses fall in two classes—long-term ones for specialists and short terms for non-specialists who wish to freshen themselves in certain subjects or possibly for specialists who wish to study some phase intensively.

He thought that graduate instruction will grow. Internship and resident services will be standardized and probably under the supervision of schools. All large and important hospitals should be teaching centers and these might be conducted in part by extension courses from organized schools.

The papers were discussed by Drs. DeWolf, Van Benschoten, Richardson, Hawkes, Scammon, Leonard, Blosser, Soforenko, Mead and Begg.

Meeting adjourned at 11 P. M. Attendance 61. Collation followed.

Respectfully submitted,

Peter Pineo Chase, *Secretary*

HOSPITALS

MEMORIAL HOSPITAL.

The following is a report of the January meeting of the Memorial Hospital Staff, held January 7, 1926:

Meeting called to order at 9:20 P. M. by President Wheaton. Minutes of the December meeting were read and approved. Members present: Drs. Wheaton, Kenney, Moor, Holt, Siske, Wing, Triedman, Kelley, Chapian, Shaw, Touzjian, Jones, Kerney, Lutz, Harris, Gilroy, Hawkins.

Reports of various services were read and approved. Dr. A. T. Jones read a paper on "End Results of Heart Operation." He stressed the importance of following up these cases post-operatively. Meeting adjourned at 10:20 P. M.

JOHN F. KENNEY, *Secretary*

PROVIDENCE CITY HOSPITAL.

At the January meeting of the Board of Hospital Commissioners, the following physicians were elected to the staff for the ensuing year:

Dr. M. J. Nestor, Dr. Alex M. Burgess, Dr. Henry J. Gallagher, Dr. Prescott T. Hill, Dr. Maurice Adelman, Dr. A. R. Newsam, Dr. H. J. Connor, Dr. Carl D. Sawyer, Dr. Henry S. Joyce, Dr. Francis V. Garside, Dr. Walter C. Robertson, Dr. Wilfred C. Pickles, Dr. James McCann, Dr. John Walsh, Dr. George Waterman, Dr. James W. Leech, Dr. Raymond Bugbee, Dr. Frank T. Fulton, Dr Halsey DeWolf, Dr. Joseph H. Bennett, Dr. Reuben C. Bates, Dr. John T. Monahan, Dr. B. Feinberg, Dr. William W. Cummings, Dr. Benjamin F. Sharpe, Dr. Edward A. McLaughlin, Dr. Anthony Corvese, Dr. Antonio Ventrone, Dr. Pearl Williams, Dr. James F. Boyd, Dr. Earle Kelly, Dr. Louis I. Kramer, Dr. J. Edwards Kerney, Dr. Nat H. Gifford, Dr. Eric Stone, Dr. Frederic J. Farnell, Dr. Harold G. Calder, Dr. Robert M. Lord, Dr. William C. McLaughlin, Dr. Earle Brennan, Dr. John I. Pickney, Dr. Herman A. Winkler, Dr. Bertram Buxton, Dr. Ira H. Noyes, Dr. Edward Cameron, Dr. Ralph DeLeone, Dr. William Muncy, Prof. Frederick P. Gorham, Prof. Philip Mitchell, Dr. Edmund D. Chesebro, Dr. Henry Utter, Dr. Robert M. Lord, Dr. William A. Mulvey, Dr. Guy W. Wells, Dr. Michael O'Connor, Dr. Alfred McAlpine, Dr. Alfred Potter, Dr. Frank Matteo, Dr. Frank L. Day, Dr. George S. Mathews, Dr. Isaac Gerber, Dr. Jacob S. Kelley.

On January 1st, Dr. Edward T. Streker and Dr. Americo J. Pedorella finished their interne service and entered private practice in Providence. Dr. Louis E. Weymuller, a graduate of the University of Nebraska, and Dr. Lambert Krahulik from the same school, began their services. Dr. Krahulik was sent here from the Pediatric Service at Long Island Hospital by Dr. C. H. Laws, Professor of Pediatrics.

BOOK REVIEW

THE DEVELOPMENT OF OUR KNOWLEDGE OF TUBERCULOSIS.

By

LAWRENCE F. FLICK, M.D., L.L.D.

The Wickersham Printing Company, Publishers, Lancaster, Penn. Price $7.50.

After many years spent in the study and treatment of tuberculosis, Dr. Flick has made an extended search of libraries here and abroad and has secured the original papers of those who have made research in this subject, sometimes at the expense of their own lives, and has given a consecutive account of their work. He has given verbatim the important abstracts from the historical reports and thus condensed in one volume a most complete resumé of this important subject.

The book is valuable as a study of the development of medical knowledge as well as of the development of this particular disease. The student of tuberculosis can here get from one book knowledge which has heretofore required extensive reading. It presents vividly the groping of the human mind for the unknown and the opposition which original workers meet even when their researches are rewarded by the truth. It is hard now to realize how indefinite was the knowledge of tuberculosis even only one hundred years ago and that any accurate knowledge as to differentiation of tuberculosis from some other diseased conditions dates back only to 1882, but such is the case, and the story is a most intense one and inter-

estingly told. The practice of medicine is an art, but this book shows how dependent that art is upon science as acquired in the post-mortem room and the laboratory. It should be read by every student of tuberculosis at the beginning of his studies.

ANNOUNCEMENT

INTER-STATE POST GRADUATE FOREIGN CLINIC ASSEMBLIES.

1926.

The 1926 foreign clinic assemblies given under the direction of the Inter-State Post Graduate Assembly of North America will cover a territory including the chief clinic cities of Italy, Switzerland, Germany, Austria, Czecho-Slovakia, Holland and Belgium.

The physicians are going abroad as the result of invitations extended, through this Association, by the leading medical universities and institutions of the countries to be visited to the medical profession of North America.

The members of the party will sail from New York on April 28th, a few days after the meeting of the American Medical Association at Dallas, Texas, thus giving the physicians of the party plenty of time to attend this meeting.

The large first-class cruising steamer, the "Araguaya," of the Royal Mail Steam Packet Line, has been chartered to take the physicians abroad. The party will land at Cherbourg and will go at once to Paris, where the clinic assemblies start.

Dr. Carl Beck of Chicago, the general secretary for the foreign assemblies, is now in Europe completing the clinic arrangements for the assemblies. The clinic cities to be visited are as follows: Paris, Rome, Florence, Padua, Milan, Berne, Zurich, Munich, Vienna, Prague, Berlin, Amsterdam, The Hague, Ultrecht, Leyden and Brussels. There will be extension assemblies held in all other principal medical centers of Europe following the main assemblies.

It is of interest to note that a large per cent. of the distinguished teachers who will instruct the assemblies speak the English language. However, there will be a director chosen from the teaching staff in each of the clinics who will be able to speak good English in case the chiefs do not. It will be the duty of this director to present the history cases and to answer questions as an interpreter. This is one of the reasons why Dr. Beck is now in Europe.

The assemblies are open to members of the profession who are in good standing in their State or Provincial Society, with no restriction to territory. This invitation is understood to be extended to the entire medical profession of North America.

Admittance to the clinics and privileges of the tour will be protected by the issuing of an admittance ticket or card. This rule will be strictly enforced in order to protect the Association in its membership requirements, which is, that a physician must be in good standing in his State or Provincial Society. We will not be responsible or admit physicians to privileges unless they are members of the group.

The members of the party will be limited to a number that can be accommodated comfortably in both the clinics and hotels. After careful consideration and consultation with the transportation department and the foreign clinics, this number has been fixed at five hundred, which includes members of physicians' families. Necessarily this will limit the number of physicians to around three hundred.

Physicians may return home on three separate sailings during the main assemblies. First, at the end of the visit to Italy and Switzerland by way of Cherbourg; second, at the end of the visit to Holland from Rotterdam, and third, at the end of the assembly in Brussels from the port of Antwerp.

It is necessary in order to hold space for the assemblies to send to the office of the Managing-Director, W. B. Peck, Freeport, Illinois, the sum of $65.00 per person. If for any reason the applicant for space decides that he cannot attend the assemblies, the money will be refunded immediately, if this demand is made as early as six weeks before sailing time. A booklet of information pertaining to the assemblies and prices for same may be secured free of charge by writing the Managing-Director's office.

Ladies' Entertainment: Besides the extensive sight-seeing and travel features, arrangements are being made for a ladies' entertainment committee

in each of the clinic cities. The committees will be composed of the wives of the clinicians and prominent citizens.

In offering the foreign clinic assemblies this Association has the hearty co-operation and assistance of the most distinguished teachers and clinicians in both North America and Europe. The organization in its endeavors hopes to combine with its success in post-graduate work a corresponding advancement in international good fellowship among the members of the medical profession of the different countries of the world.

The officers of the assemblies are:

Dr. Charles H. Mayo, Chief Executive and General Chairman, Rochester, Minnesota.

Dr. Carl Beck, General Secretary, Chicago, Illinois.

Dr. William H. Peck, Managing-Director, Freeport, Illinois.

Mr. Reeve Chipman, Manager of Transportation, Boston, Mass.

A second section of the assemblies for a limited number will be conducted during the summer months for those who are unable to take advantage of the April sailing. The members of the party will leave New York, S. S. "Pittsburgh, on June 19th, return sailing, August 13th, from Antwerp, S. S. "Zeeland."

MISCELLANEOUS

"NO SUCH THING AS SKIN FOOD"—*Hygeia.*

The idea that the skin can be nourished by the application of lotions and ointments is a fallacy which probably has its origin in the advertisements of preparations made to sell.

There is no such thing as a skin food. The intact skin can be soothed, stimulated (inflamed), or be made temporarily more pliable by external applications of this nature, but it cannot be fed. There is no physiologic process in the skin of man, unless it is that of respiration, that is so slight as that of absorption. The chief function of the skin is to protect its underlying structures; its construction is such that substances coming in contact with it will not gain entrance to it or to the body, at least in more than negligible amounts. The chief exception to this fact is mercury, which, when applied in a normal fat to the skin, is partially absorbed, a fact often made use of in the treatment of syphilis.—*Hygeia.*

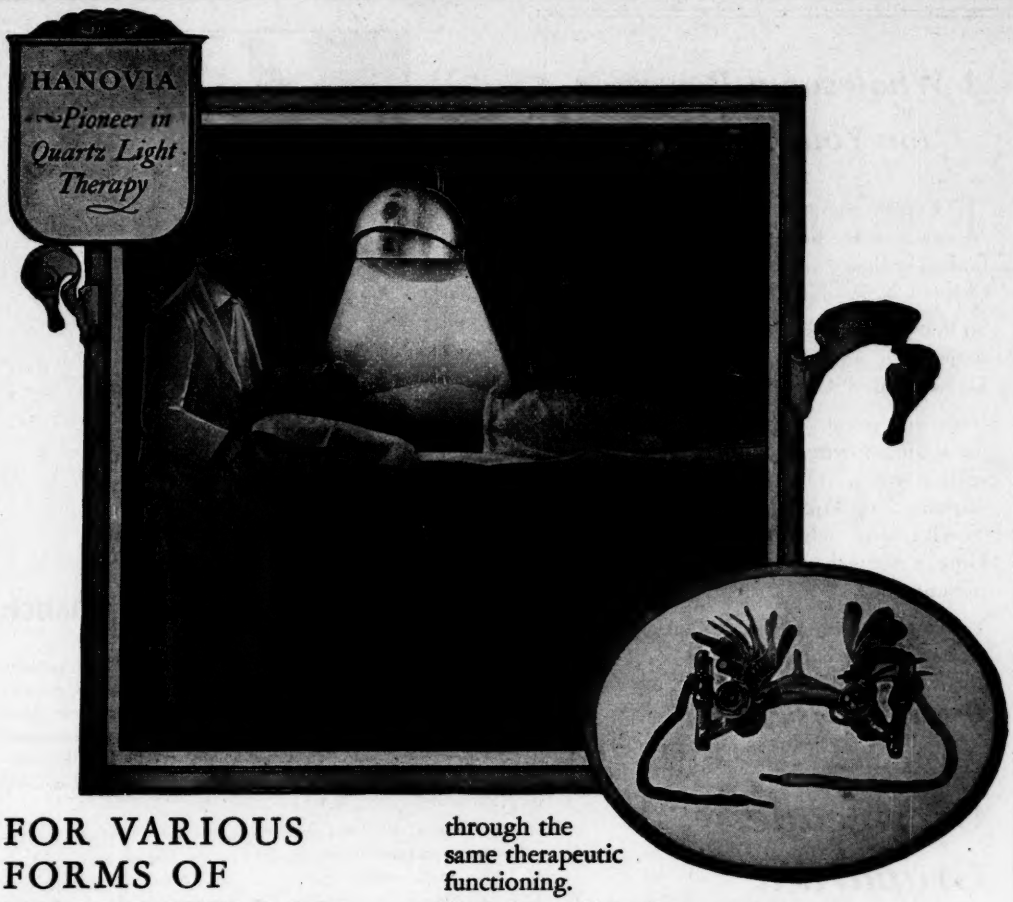
GENERAL GOOD HEALTH BRINGS HEALTHY SKIN.

More spinach and less whipped cream, more water and less fancy drinks, more soap and water on the skin, more fresh air in the sleeping room, and more outdoor exercise will keep the body and its skin covering in a healthy condition, says Dr. Herman Goodman, who writes about the skin of the growing girl and boy in December *Hygeia,* popular health magazine published by the American Medical Association.

The skin cannot be more healthy than the body within the skin. The growing boy or girl is undergoing tremendous changes and the skin in its turn is taking on new activities, new functions, and a different relationship to the body. To preserve the health of the skin, attention should be paid to the upkeep of the health of the body.

A CASE OF BULLET IN THE HEART.

J. W. Steckbauer, St. Louis (*Journal A. M. A.,* May 9, 1925), records a case in which a bullet traversed the abdominal cavity from the buttock to its lodgment in the heart muscle. The heart injury was always secondary in importance to numerous lesions of the abdominal viscera. Laparotomy was performed at once. The following perforations of the viscera were discovered: One in the transverse colon, one in the sigmoid, one in the descending colon, one in the posterior wall of the stomach, and seven in the small intestine. None of these were so large as to prevent simple purse-string closure with catgut. No vascular injury in the abdomen was found. A rubber drain was inserted in the pelvis, and one in the region of the sigmoid. The abdomen was closed in layers with catgut and mass sutures of silkworm-gut. After a stormy post-operative course, requiring a blood transfusion, the patient gradually improved. Nine months after injury, the boy was in excellent general condition and was working as a messenger boy. There were no symptoms referable to the heart, and examination of the heart area was entirely negative.



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